

CLAIMS

I claim:

1. An installation assembly (22) for use with elevator systems, comprising:
 - 5 a first platform (28);
 - a first holding device (34) associated with the first platform, the first holding device being operative to maintain a vertical position of the first platform relative to a guide rail and to permit movement of the platform from the maintained position in one direction;
 - 10 a second platform (30);
 - a second holding device (36) associated with the second platform, the second holding device being operative to maintain a vertical position of the second platform relative to the guide rail and to permit movement of the second platform from the maintained position in the one direction; and
 - 15 moving mechanism (32) that incrementally moves the platforms in the one direction.
 2. The assembly of claim 1, wherein the moving mechanism (32) cyclically urges the first and second platforms (28, 30) toward and away from each other.
 - 20 3. The assembly of claim 2, wherein the holding devices (34, 36) operate to allow only one of the first or second platforms (28, 30) to move at a time responsive to the urging of the moving mechanism (32).
 - 25 4. The assembly of claim 1, wherein the moving mechanism (32) includes a linkage assembly connected to the platforms for sequentially pushing the first platform (28) away from the second platform (30) in the one direction then pulling the second platform (30) toward the first platform (28) in the one direction.

5. The assembly of claim 4, where the linkage assembly comprises a rotatable drive shaft (40) having a first end connected to a mover (38), a lever (42) connected to an opposite end of the drive shaft, and a connecting link (46) having a first end 5 rotatably connected to the lever such that rotation of the drive shaft (40) causes movement of the connecting link (46) to push and pull the platforms (28, 30) away from and toward each other, respectively..

6. The assembly in claim 1, where the moving (32) mechanism comprises a 10 pressurized actuator (70).

7. The assembly of claim 1, wherein the first and second holding devices (34, 36) comprise elevator safety devices that are adapted to engage the guide rail to allow movement in the one direction and to prevent movement in an opposite direction

8. A method of moving a platform (28) in a desired direction along a guide rail (24) comprising:

5 cyclically urging first and second platforms (28, 30) toward and away from each other; and preventing the platforms (28, 30) from moving in an opposite, undesired direction.

9. The method of claim 8, including:

- 10 a. securing the first platform (28) in a first position (28);
- b. moving the second platform (30) toward the first platform (28) until the second platform is in a second position (30b);
- c. securing the second platform (30) in the second position (30b); and
- d. moving the first platform (28) away from the second platform (30) to a new first position (28b).

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10. The method of claim 9 including sequentially repeating steps a) through d) until the first platform (28) is in a desired position.

11. A device for moving a platform along guide rails in an elevator system, comprising:

5 a first platform (28);
 a second platform (30); and

 a moving mechanism between the first (28) and second platforms (30) and coupled to the platforms that sequentially urges the platforms toward and away from each other to cause incremental movement of the platforms in a desired direction along the guide rails (24).

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12. The device of claim 11, including a holding device (34, 36) associated with each of the platforms, the holding devices (34, 36) allowing movement of the platforms along the guide rails in the desired direction and preventing movement of the platforms along the guide rails in an opposite direction.

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13. The device of claim 11, wherein the moving mechanism comprises at least one pressurized actuator (70).

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14. The device of claim 11, wherein the moving mechanism comprises at least one linkage arm (46) that is moveable to urge the platforms toward and away from each other.

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15. The device of claim 14, wherein the moving mechanism includes a lever member coupled with the linkage arm (46) such that rotary movement of the lever member causes generally linear movement of the linkage arm.

16. The device of claim 15, wherein the lever member is coupled to a rotatable drive shaft.

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17. The device of claim 16, wherein the drive shaft (40) and lever (42) are supported on the second platform, one end of the linkage arm (46) is coupled with the lever (42) and an opposite end of the linkage arm (46) is coupled with the first platform (28).